

We claim:

1. An attenuated strain of *Flavobacterium columnare* resistant to rifampicin and effective for eliciting an immune response in fish which is protective against infection by virulent strains of *Flavobacterium columnare*.

2. The attenuated strain as described in claim 1 wherein said strain of *Flavobacterium columnare* is selected from the group consisting of NRRL B-30303 and B-30304.

3. The attenuated strain as described in claim 2 wherein said strain of *Flavobacterium columnare* is NRRL B-30303.

4. The attenuated strain as described in claim 2 wherein said strain of *Flavobacterium columnare* is NRRL B-30304.

5. A vaccine comprising: (1) in an effective immunization dosage the attenuated strain of *Flavobacterium columnare* of claim 1 and a carrier.

6. The vaccine as described in claim 3 wherein said strain of *Flavobacterium columnare* is selected from the group consisting of NRRL B-30303 and B-30304.

7. The vaccine as described in claim 6 wherein said strain of *Flavobacterium columnare* is NRRL B-30303.

8. The vaccine as described in claim 6 wherein said strain of *Flavobacterium columnare* is NRRL B-30304.

9. The vaccine as described in claim 5 wherein said carrier is water.

10. A method of providing protection for fish against infection by virulent strains of *Flavobacterium columnare* comprising administering the vaccine of claim 5 to said fish.

11. A method of claim 10 wherein said fish is catfish.

12. The method of claim 10 wherein said administering is by means of immersion of said fish in an aqueous medium containing said vaccine.

13. The method of claim 11 wherein said administration is by means of immersion in an aqueous system.

14. The method of claim 12 wherein said attenuated strain of *Flavobacterium columnare* is present in the immersion medium at a concentration greater than or equal to about 1×10^5 CFU/ml.

15. The method of claim 13 wherein said attenuated strain of *Flavobacterium columnare* is present in the immersion bath at a concentration greater than or equal to about 1×10^5 CFU/ml.